



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Richard B. North;
Jeffrey M. Sieracki;
Kim R. Fowler;
Lon H. Holland

Confirmation No. 3945

Serial No.: 10/669,392

Filed: September 24, 2003 Customer No.: 28863

Examiner: Unknown

Group Art Unit: 3762

Docket No.: 1023-306US03

Title: PATIENT INTERACTIVE NEUROSTIMULATION SYSTEM AND
METHOD

CERTIFICATE UNDER 37 CFR 1.8: I hereby certify that this correspondence is being deposited with the United States Post Service, as First Class Mail, in an envelope addressed to: Commissioner for Patents, Alexandria, VA 22313-1450 on March 8, 2004.

By: Beth M. Lindblom
Name: Beth M. Lindblom

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Alexandria, VA 22313-1450

Dear Sir:

Applicant submits the references listed on the attached form PTO-1449, copies of which are enclosed. This statement is being filed, to the best of Applicant's knowledge, before the receipt of a first Office Action on the merits.

Respectfully submitted,

Date: 3/8/2004

Shumaker & Sieffert, P.A.
8425 Seasons Parkway, Suite 105
St. Paul, Minnesota 55125
Phone: (651) 735-1100
Fax: (651) 735-1102

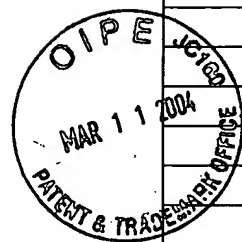
Jason D. Kelly
By: Jason D. Kelly
Reg. No. 54,213

Form 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)		Docket Number: 1023-306US03		Application Number: 10/669,392	
		Applicant: Richard B. North; Jeffrey M. Sieracki; Kim R. Fowler; Lon H. Holland			
		Filing Date: September 24, 2003		Group Art Unit: 3762	
		Examiner Name: Unknown			
U.S. PATENT DOCUMENTS					
Examiner Initial	Document Number	Issue/Document Publication Date	Name	Filing Date If Appropriate	
	4,520,825	06/04/1985	Thompson et al.		
	4,735,204	04/05/1988	Sussman et al.		
	4,784,142	11/15/1988	Liss et al.		
	4,803,988	02/14/1989	Thomson		
	4,813,418	03/21/1989	Harris		
	4,958,632	09/25/1990	Duggan		
	4,977,895	12/18/1990	Tannenbaum		
	5,002,053	03/26/1991	Garcia-Rill et al.		
	5,014,705	05/14/1991	Graupe et al.		
	5,033,469	07/23/1991	Brodard		
	5,052,391	10/01/1991	Silberstone et al.		
	5,081,989	01/21/1992	Graupe et al.		
	5,092,329	03/03/1992	Graupe et al.		
FOREIGN PATENT DOCUMENTS					
Examiner Initial	Document Number	Publication Date	Country	Translation	
				Yes	No
	WO 97/43002	11/20/1997	PCT		
	WO 98/29160	07/09/1998	PCT		
OTHER DOCUMENTS (Including Authors, Title of Item, Page(s), Vol/Issue No., Publisher, Place of Publication)					
	Robin et al., "A New Implantable Microstimulator Dedicated to Selective Stimulation of the Bladder," Proceedings - 19 th International Conference - IEEE/EMBS October 30-November 2, 1997, Chigaco, IL, pp. 1792-1795.				
	"GenesisXP™ Neurostimulation Systems," Implantable Therapies for Chronic Pain and Neurological Disorders, http://www.ansmedical.com/physicians/GenesisXPSystem/XPOverview.cfm				
	"PainDoc® Computerized Support System," Implantable Therapies for Chronic Pain and Neurological Disorders, http://www.ans-medical.com/physicians/PainDoc/PainDoc.html				
	North et al., "Spinal cord stimulation for chronic intractable pain," Spinal Cord Stimulation II, pp. 49-63, Darmstadt, Steinkopff, 1995.				
EXAMINER			Date Considered		

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Form 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)		Docket Number: 1023-306US03		Application Number: 10/669,392	
		Applicant: Richard B. North; Jeffrey M. Sieracki; Kim R. Fowler; Lon H. Holland			
		Filing Date: September 24, 2003		Group Art Unit: 3762	
		Examiner Name:			
U.S. PATENT DOCUMENTS					
Examiner Initial	Document Number	Issue/Document Publication Date	Name	Filing Date If Appropriate	
	5,117,826	06/02/1992	Bartelt et al.		
	5,143,089	09/01/1992	Alt		
	5,159,926	11/03/1992	Ljungstroem		
	5,215,086	06/01/1993	Terry, Jr. et al.		
	5,314,458	05/24/1994	Najafi et al.		
	5,330,515	07/19/1994	Rutecki et al.		
	5,335,657	08/09/1994	Terry, Jr. et al.		
	5,350,414	09/27/1994	Kolen		
	5,354,320	10/11/1994	Schaldach et al.		
	5,370,672	12/06/1994	Fowler et al.		
	5,387,231	02/07/1995	Sporer		
	5,417,719	05/23/1995	Hull et al.		
	5,423,877	06/13/1995	Mackey		
	5,443,486	08/22/1995	Hrdlicka et al.		
	5,458,625	10/17/1995	Kendall		
	5,458,626	10/17/1995	Krause		
FOREIGN PATENT DOCUMENTS					
Examiner Initial	Document Number	Publication Date	Country	Translation	
				Yes	No
OTHER DOCUMENTS (Including Authors, Title of Item, Page(s), Vol/Issue No., Publisher, Place of Publication)					
	"MultiStim®," Implantable Therapies for Chronic Pain and Neurological Disorders, http://www.ansmedical.com/physicians/RenewRFSsystem/MultiStim.html				
	"PC-Stim®," Implantable Therapies for Chronic Pain and Neurological Disorders, http://www.ansmedical.com/physicians/RenewRFSsystem/PCStim.html				
	"Renew® Neurostimulation System Overview," Implantable Therapies for Chronic Pain and Neurological Disorders, http://www.ans-medical.com/physicians/RenewRFSsystem/SystemOverview.html				
EXAMINER			Date Considered		
*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Based on Form PTO-FB-A820 Patent and Trademark Office, U.S. Department of Commerce (Also form PTO-1449)					

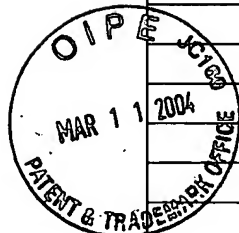


Form 1449*		Docket Number: 1023-306US03		Application Number: 10/669,392	
INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)		Applicant: Richard B. North; Jeffrey M. Sieracki; Kim R. Fowler; Lon H. Holland			
		Filing Date: September 24, 2003		Group Art Unit: 3762	
		Examiner Name:			
U.S. PATENT DOCUMENTS					
Examiner Initial	Document Number	Issue/Document Publication Date	Name	Filing Date If Appropriate	
	5,466,246	11/14/1995	Silvian		
	5,540,730	07/30/1996	Terry, Jr. et al.		
	5,569,166	10/29/1996	Stone		
	5,643,329	07/01/1997	Solomonow et al.		
	5,643,330	07/01/1997	Holsheimer et al.		
	5,653,739	08/05/1997	Maurer et al.		
	5,702,429	12/30/1997	King		
	5,716,377	02/10/1998	Rise et al.		
	5,725,564	03/10/1998	Freed et al.		
	5,755,736	05/26/1998	Gillberg et al.		
	5,807,397	09/15/1998	Barreras		
	5,843,139	12/01/1998	Goedeke et al.		
	5,843,142	12/01/1998	Sultan		
FOREIGN PATENT DOCUMENTS					
Examiner Initial	Document Number	Publication Date	Country	Translation	
				Yes	No
OTHER DOCUMENTS (Including Authors, Title of Item, Page(s), Vol/Issue No., Publisher, Place of Publication)					
	North et al., "Artificial Neural Networks: Application to Electrical Stimulation of the Nervous System," (abstract) Stereotactic and Functional Neurosurgery 65:161, 1995.				
	North et al., "Artificial Neural Networks: application to electrical stimulation of the human nervous system," Neurosurgical Focus 2(1:1):1-5, 1997.				
	North et al., "Patient-Interactive, Microprocessor-Controlled Neurological Stimulation System," Neuromodulation 1(4):185-193, 1998.				
	Fowler, K.R., "Neurological Stimulation System", Proceedings AAMI 21 st Annual Meeting, Apr. 12-16, 1986, p.27.				
EXAMINER			Date Considered		

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Based on Form PTO-FB-A820
(Also form PTO-1449)

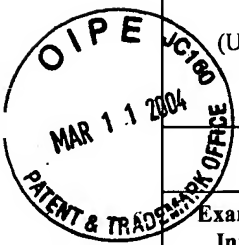
Patent and Trademark Office, U.S. Department of Commerce



Form 1449*		Docket Number: 1023-306US03		Application Number: 10/669,392	
INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)		Applicant: Richard B. North; Jeffrey M. Sieracki; Kim R. Fowler; Lon H. Holland			
		Filing Date: September 24, 2003		Group Art Unit: 3762	
		Examiner Name: Unknown			
U.S. PATENT DOCUMENTS					
Examiner Initial	Document Number	Issue/Document Publication Date	Name	Filing Date If Appropriate	
	5,893,883	04/13/1999	Torgerson et al.		
	5,938,690	08/17/1999	Law et al.		
	6,175,764 B1	01/16/2001	Loeb et al.		
	6,205,359 B1	03/20/2001	Boveja		
	6,249,703 B1	06/19/2001	Stanton et al.		
	6,308,100 B1	10/23/2001	Er et al.		
	6,308,102 B1	10/23/2001	Sieracki et al.		
	6,321,117 B1	11/20/2001	Koshiol et al.		
	6,381,496 B1	04/30/2002	Meadows et al.		
	2002/0116036	08/22/2002	Daignault, Jr. et al.		
	6,440,090 B1	08/27/2002	Schallhorn		
	6,516,227 B1	02-04-2003	Meadows et al.		
	2003/0028223	02/06/2003	Olson		
	6,564,807 B1	05/20/2003	Schulman et al.		
FOREIGN PATENT DOCUMENTS					
Examiner Initial	Document Number	Publication Date	Country	Translation	
				Yes	No
OTHER DOCUMENTS (Including Authors, Title of Item, Page(s), Vol/Issue No., Publisher, Place of Publication)					
	North et al., "Spinal Cord Stimulation for Chronic, Intractable Pain: Experience over Two Decades Clinical Study," Neurosurgery, vol. 32, no. 3, 1993, pp. 384-395.				
	North et al., "Spinal cord stimulation for chronic, intractable pain: superiority of 'multi-channel' devices," Pain, vol. 44, 1991, pp. 119-130.				
	North et al., "Spinal Cord Stimulation for Chronic Pain," Functional Neurosurgery, vol. 6, no. 1, January, 1995, pp. 145-155.				
	North, R.B., "Spinal Cord Stimulation for Chronic, Intractable Pain," Electrical and Magnetic Stimulation of the Brain and Spinal Cord, 1993, pp. 289-301.				
	North, R.B., "The Role of Spinal Cord Stimulation in Contemporary Pain Management," APS Journal, vol. 2, No. 2, 1993, pp. 91-99.				
EXAMINER			Date Considered		
*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.					

Form 1449*		Docket Number: 1023-306US03		Application Number: 10/669,392	
INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)		Applicant: Richard B. North; Jeffrey M. Sieracki; Kim R. Fowler; Lon H. Holland			
		Filing Date: September 24, 2003		Group Art Unit: 3762	
		Examiner Name: Unknown			
U.S. PATENT DOCUMENTS					
Examiner Initial	Document Number	Issue/Document Publication Date	Name		Filing Date If Appropriate
FOREIGN PATENT DOCUMENTS					
Examiner Initial	Document Number	Publication Date	Country	Translation Yes No	
OTHER DOCUMENTS (Including Authors, Title of Item, Page(s), Vol/Issue No., Publisher, Place of Publication)					
	Alo et al., "Computer Assisted and Patient Interactive Programming of Dual Octrode Spinal Cord Stimulation in the Treatment of Chronic Pain," Neuromodulation, vol. 1, No. 1, 1998, pp. 30-45.				
	Fowler et al., "Patient-interactive PC interface to implanted, multichannel stimulators," Proceedings of 39 th Annual Conference on Engineering in Medicine and Biology, p. 380, 1986.				
	North et al., "Computer-Controlled, Patient-Interactive, Multichannel, Implanted Neurological Stimulators," Applied Neurophysiology 50:39-41, 1987.				
	North et al., Computer-controlled, multichannel, implanted neurological stimulation system: clinical assessment," Pain (Suppl.) 5:S83, 1990.				
	Fowler et al., "Computer-Optimized Neurological Stimulation," Proc. Ann. Internat. Conf. IEEE Engineering Medicine and Biology Soc., vol. 13, no. 4, pp. 1692-1693, 1991.				
	Fowler et al., "Computer-Optimized Neurostimulation," APL Technical Digest, vol. 12, no. 2, pp. 192-197, 1991.				
	North et al., "Patient-interactive, computer-controlled neurological stimulation system: clinical efficacy in spinal cord stimulator adjustment." Journal of Neurosurgery 76:967-972, 1992.				
	North et al., "Automated 'pain drawing' analysis by computer-controlled, patient-interactive neurological stimulation system," Pain 50:51-57, 1992.				
	North et al., "Computer-controlled, patient-interactive neurological stimulation system," (Abstract) Acta Neurochir 117:90, 1992.				
EXAMINER			Date Considered		

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Form 1449*		Docket Number: 1023-306US03		Application Number: 10/669,392	
INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)		Applicant: Richard B. North; Jeffrey M. Sieracki; Kim R. Fowler; Lon H. Holland			
		Filing Date: September 24, 2003		Group Art Unit: 3762	
		Examiner Name: Unknown			
U.S. PATENT DOCUMENTS					
Examiner Initial	Document Number	Issue/Document Publication Date	Name		Filing Date If Appropriate
FOREIGN PATENT DOCUMENTS					
Examiner Initial	Document Number	Publication Date	Country	Translation	
				Yes	No
OTHER DOCUMENTS (Including Authors, Title of Item, Page(s), Vol/Issue No., Publisher, Place of Publication)					
	North et al., "Patient-Interactive, Microprocessor-Controlled Neurological Stimulation System," (Abstract), Stereotactic and Functional Neurosurgery 62:309-315, 1994.				
	North et al., "Consensus Conference on the Neurosurgical Management of Pain," Neurosurgery 34:4, 756-761, 1994.				
	North et al., "A Prospective, Randomized Study of Spinal Cord Stimulation versus Reoperation for Failed Back Surgery Syndrome: Initial Results," Stereotact Funct Neurosurg 1994:62:267-272.				
	North et al., "Prognostic Value of Psychological Testing in Patients Undergoing Spinal Cord Stimulation: A Prospective Study," Neurosurgery, Vol. 39, No. 2, 1996.				
	North et al., "Specificity of diagnostic nerve blocks: a prospective, randomized study of sciatica due to lumbosacral spine disease," Pain, 65, pp. 77-85, 1996.				
	North et al., "Automated, Patient-Interactive, Spinal Cord Stimulator Adjustment: A Randomized Controlled Trial," Neurosurgery 52:572-580, 2003.				
	Khalessi et al., "Automated, patient-interactive spinal cord stimulator adjustment: A cost-minimization analysis," Neurosurgery, vol. 53, no. 2, pp. 501-502, 2003.				
EXAMINER			Date Considered		

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Based on Form PTO-FB-A820
(Also form PTO-1449)

Patent and Trademark Office, U.S. Department of Commerce

